



PATENT

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Harry Lee

Applicant: **BAMDAD, Cynthia C.**Serial No.: **10/823,097**Filed: **04/13/2004**Confirmation No.: **3158**Title: **RAPID AND SENSITIVE  
DETECTION OF PROTEIN  
AGGREGATION**Examiner: **Pensee T. Do**Art Unit: **1641**Attorney Docket No.: **M1015.70013US01****IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**INFORMATION DISCLOSURE STATEMENT**

Sir:

In accordance with 37 C.F.R. § 1.56, the references listed below and on the attached forms PTO/SB/08A and PTO/SB/08B (substitutes for form 1449/PTO) are being brought to the attention of the Examiner for consideration in connection with the examination of the above-identified patent application. The filing of this Information Disclosure Statement shall not be construed as a representation that a search has been made (37 C.F.R. § 1.97(g)), as an admission that the information cited is, or is considered to be, material to patentability, or that no other material information exists. The filing of this Information Disclosure Statement shall not be construed as an admission against interest in any manner. Copies of the cited documents are enclosed.

**English Language Documents:**

US 5,137,827, MROCZKOWSKI et al., August 11, 1992
US 5,922,537, EWART et al., July 13, 1999
US 5,958,783, JOSEL et al., September 28, 1999

US 5,324,633, FODOR et al., June 28, 1994
US 5,512,131, KUMAR et al., April 30, 1996
US 5,620,850, BAMDAD et al., April 15, 1997
US 5,620,820, BERTRAND et al., April 15, 1997
WO 98/31839 A2, BAMDAD, July 23, 1998
WO 98/37421 A1, MAGGIO et al., August 27, 1998
WO 99/08695 A1, GLABE et al., February 25, 1999
WO 00/43791 A2, BAMDAD et al., July 27, 2000
WO 96/29629 A2, WHITESIDES et al., September 26, 1996
SIGAL et al., "Self-Assembled Monolayer for the Binding and Study of Histidine-Tagged Proteins by Surface Plasmon Resonance", <i>Analytical Chemistry</i> (1996), 68(3): 490-497
TERZI et al., "Interaction of Alzheimer Beta-Amyloid Peptide(1-40) with Lipid Membranes", <i>Biochemistry</i> (1997), 36(48): 14845-14852
LANSBURY, "Evolution of amyloid: What normal protein folding may tell us about fibrillogenesis and disease", <i>Proc. Natl. Acad. Sci. USA</i> (1999), 96: 3342-3344
JARRETT et al., "The carboxy terminus of the beta amyloid protein is critical for the seeding of amyloid formation: implications for the pathogenesis of Alzheimer's disease", <i>Biochemistry</i> (1993), 32(18): 4693-4697
HARPER et al., "Observation of metastable Abeta amyloid protofibrils by atomic force microscopy", <i>Chem. Biol.</i> (1997), 4(2): 119-125
LAIBINIS et al., "Orthogonal Self-Assembled Monolayers: Alkanethiols on Gold and Alkane Carboxylic Acids on Alumina", <i>Science</i> (1989), 245: 845-847
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BAIN et al., "Formation of Monolayers by the Coadsorption of Thiols on Gold: Variation in the Head Group, Tail Group, and Solvent", <i>J. Am. Chem. Soc.</i> (1989), 111(18): 7155-7164
SANNA et al., "Localization of a Passively Transferred Human Recombinant Monoclonal Antibody to Herpes Simplex Virus Glycoprotein D to Infected Nerve Fibers and Sensory Neurons In Vivo", <i>Journal of Virology</i> (1999), 73(10): 8817-8823
AKERSTROM et al., "Definition of IgG—and albumin-binding regions of streptococcal protein G", <i>J. Biol. Chem.</i> (1987), 262(28): 13388-13391
FAHNESTOCK et al., "Gene for an Immunoglobulin-Binding Protein from a Group G Streptococcus", <i>Journal of Bacteriology</i> (1986), 167(3): 870-880
WOLFE et al., "Two transmembrane aspartates in presenilin-1 required for presenilin endoproteolysis and $\gamma$ -secretase activity", <i>Nature</i> (1999), 398: 513-517
LEBLANC et al., "Role of amyloid precursor protein (APP): Study with antisense transfection of human neuroblastoma cells", <i>J. Neurosci. Res.</i> (1992), 31(4): 635-645 (abstract only)
SELKOE, "The cell biology of beta-amyloid precursor protein and presenilin in Alzheimer's disease", <i>Cell Biology</i> (1998), 8: 447-453

KNOPS et al., "Cell-type and Amyloid Precursor Protein-type Specific Inhibition of A Release by Bafilomycin A1, a Selective Inhibitor of Vacuolar ATPases", *J. Biol. Chem.* (1995), 270(6): 2419-2422

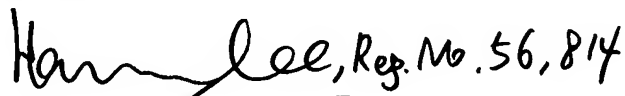
HAASS et al., "The Swedish mutation causes early-onset Alzheimer's disease by beta-secretase cleavage within the secretory pathway", *Nat. Med.* (1995), 1(12): 1291-1296 (abstract only)

It is respectfully requested that the Examiner indicate consideration of the cited references by returning copies of the attached forms PTO/SB/08A and PTO/SB/08B (substitutes for form 1449/PTO) with initials or other appropriate marks, and that the references be made of record as cited references in the application.

Also submitted herewith are copies of the International Search Report and International Preliminary Examination Report for counterpart international application number PCT/US/01/20232 (International Publication No. WO 02/001230 A3).

The Commissioner is authorized to charge JHK Law's Deposit Account No. **502486** for any fees required under 37 CFR §§ 1.16 and 1.17 and to credit any overpayment to said Deposit Account No. **502486**.

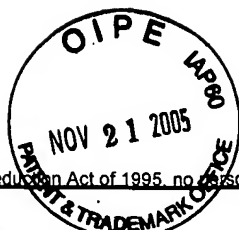
Respectfully submitted,

 Reg. No. 56,814

November 18, 2005  
Date

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Reg. No. 41,425  
Attorney for Applicants

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PTO/SB/21 (02-04)

Approved for use through 07/31/2006. OMB 0651-0031  
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**TRANSMITTAL  
FORM**

(to be used for all correspondence after initial filing)

<b>TRANSMITTAL FORM</b>  (to be used for all correspondence after initial filing)	Application Number	10/823,097	
	Filing Date	04/13/2004	
	First Named Inventor	BAMDAD, Cynthia C.	
	Art Unit	1641	
	Examiner Name	Pensee T. Do	
Total Number of Pages in This Submission	8	Attorney Docket Number	M1015.70013US01

**ENCLOSURES (Check all that apply)**

<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment/Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input checked="" type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/ Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____	<input type="checkbox"/> After Allowance communication to Technology Center (TC) <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please Identify below): PTO/SB/08A, PTO/SB/08B, and copies of the cited references A1-A7, B1-B5, C1-C16; Copies of International Search Report (WO 02/001230 A3) and International Preliminary Examination Report; Credit Card Payment Form for \$180; and Return Receipt Postcard
<b>Remarks</b> Total Number of Pages in Submission does not include references.		

**SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT**

Firm or Individual name	Joseph Hyosuk Kim, Ph.D. Reg. No. 41,425 JHK Law
Signature	<i>Harry Sung Lee, Reg. No. 56,814</i>
Date	November 18, 2005

**CERTIFICATE OF TRANSMISSION/MAILING**

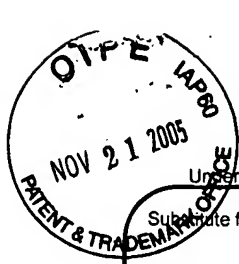
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Typed or printed name	Harry Sung Lee		
Signature	<i>Harry Sung Lee</i>	Date	November 18, 2005

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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Substitute for form 1449/PTO

**INFORMATION DISCLOSURE  
STATEMENT BY APPLICANT**

(Use as many sheets as necessary)

**Complete if Known**

Application Number	10/823,097
Filing Date	04/13/2004
First Named Inventor	BAMDAD, Cynthia C.
Art Unit	1641
Examiner Name	Pensee T. Do
Attorney Docket Number	M1015.70013US01

Sheet	1	of	2
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**NON PATENT LITERATURE DOCUMENTS**

Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	C1	SIGAL et al., "Self-Assembled Monolayer for the Binding and Study of Histidine-Tagged Proteins by Surface Plasmon Resonance", Analytical Chemistry (1996), 68(3): 490-497	
	C2	TERZI et al., "Interaction of Alzheimer Beta-Amyloid Peptide(1-40) with Lipid Membranes", Biochemistry (1997), 36(48): 14845-14852	
	C3	LANSBURY, "Evolution of amyloid: What normal protein folding may tell us about fibrillogenesis and disease", Proc. Natl. Acad. Sci. USA (1999), 96: 3342-3344	
	C4	JARRETT et al., "The carboxy terminus of the beta amyloid protein is critical for the seeding of amyloid formation: implications for the pathogenesis of Alzheimer's disease", Biochemistry (1993), 32(18): 4693-4697	
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	C6	LAIBINIS et al., "Orthogonal Self-Assembled Monolayers: Alkanethiols on Gold and Alkane Carboxylic Acids on Alumina", Science (1989), 245: 845-847	
	C7	BAIN et al., "Formation of Monolayers by the Coadsorption of Thiols on Gold: Variation in the Length of the Alkyl Chain", J. Am. Chem. Soc. (1989), 111(18): 7164-7175	
	C8	BAIN et al., "Formation of Monolayers by the Coadsorption of Thiols on Gold: Variation in the Head Group, Tail Group, and Solvent", J. Am. Chem. Soc. (1989), 111(18): 7155-7164	
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	C10	AKERSTROM et al., "Definition of IgG—and albumin-binding regions of streptococcal protein G", J. Biol. Chem. (1987), 262(28): 13388-13391	

Examiner Signature	Date Considered
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\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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				Filing Date	04/13/2004
				First Named Inventor	BAMDAD, Cynthia C.
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	C12	WOLFE et al., "Two transmembrane aspartates in presenilin-1 required for presenilin endoproteolysis and y-secretase activity", Nature (1999), 398: 513-517	
	C13	LEBLANC et al., "Role of amyloid precursor protein (APP): Study with antisense transfection of human neuroblastoma cells", J. Neurosci. Res. (1992), 31(4): 635-645 (abstract only)	
	C14	SELKOE, "The cell biology of beta-amyloid precursor protein and presenilin in Alzheimer's disease", Cell Biology (1998), 8: 447-453	
	C15	KNOPS et al., "Cell-type and Amyloid Precursor Protein-type Specific Inhibition of A Release by Bafilomycin A1, a Selective Inhibitor of Vacuolar ATPases", J. Biol. Chem. (1995), 270(6): 2419-2422	
	C16	HAASS et al., "The Swedish mutation causes early-onset Alzheimer's disease by beta-secretase cleavage within the secretory pathway", Nat. Med. (1995), 1(12): 1291-1296 (abstract only)	

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